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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/828,150

04/09/2001

Tadashi Fujieda

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09/15/2004

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EXAMINER

SWARTHOUT, BRENT

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,150

Applicant(s)

FUJIEDA ET AL.

Examiner

Brent A Swarthout

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12,14-18(1-3,12),19 and 20(12) and 38-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 38-46 is/are allowed.
- 6) ☒ Claim(s) 1-12,14-18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaragi et al.

Takaragi discloses a wave absorber comprising magnetic particles (col.5, lines 10-14) unified with oxide material (col.5, lines 16-19), wherein the particle size is less than 10 um (col.5, line 50). One of ordinary skill in the art would have recognized desirability of combining particles with ceramic material, since oxides are a form of ceramic matter.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakata et al.

Hakata discloses desirability of having a wave absorber (col.1, line 15) have fine metal powder unified with ceramic by enclosing the metal powder with ceramic (col.1, lines 51-61).

It would have been obvious to have the metal powder be of a magnetic substance, since wave absorbers conventionally contain magnetic material such as iron.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Claussen et al in view of Takaragi et al.

Claussen teaches desirability of embedding ceramic material into magnetic metal particles to create composite particles (col.1, lines 47-50).

It would have been obvious to use the composite magnetic material formed by Claussen in a wave absorber as taught by Takaragi, since Takaragi teaches desirability of using composite magnetic particles for a wave absorber, Claussen merely disclosing one conventional technique for forming such a composite substance.

4. Claims 4-8, 14-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Takaragi et al. or Hakata et al. or both Claussen et al. and Takaragi et al, further in view of Takaragi et al. or Hakata et al. or Nishihata et al.

Regarding claims 4 and 6, Takaragi teaches desirability of using iron and oxide materials (col. 5, lines 10-20).

Regarding claim 5, Hakata teaches bonding ceramic onto surface of magnetic particle (col. 1, lines 48-61).

Regarding claim 7, Nishihata teaches dispersing composite particles in a material having a higher resistivity than the particles (col. 4, lines 53-66).

Regarding claim 8, Takaragi teaches use of a resin (abstract).

Regarding claim 14, specific volume ratio would have been an obvious matter of engineering choice, depending on what ratio best absorbed desired electromagnetic waves.

Regarding claim 15, Takaragi teaches particle size below 50nm.

Regarding claims 16 and 18, Nishihata discloses coating a particle in material of higher resistivity.

Regarding claim 17, use of specific shape and ratio would have been obvious matters of engineering choice, depending on what arrangement yielded best absorbing qualities.

Regarding claim 20, Nishihata teaches use of polymers for the high resistivity material (col.6, lines 1-39).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hakata et al. in view of Darracq et al.

Darracq teaches desirability of forming a composite magnetic material using mechanical alloying of magnetic and ceramic materials (col.2, lines 20-40).

Choosing to form the composite particles of Hakata for a wave absorber using the technique as disclosed by Darracq would have been obvious in order to obtain more durable particles.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benjamin in view of Hakata et al.

Benjamin teaches that composite particles can be formed by alloying using metallic or ceramic balls (col.1, lines 47-50; col.4, lines 3-11; col.5, lines 55-60).

It would have been obvious to form composite particles for a wave absorber as suggested by Hakata using the technique as set forth by Benjamin, in order to ensure that composite materials were securely bonded together.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takaragi et al. in view of Nishihata et al.

Claim 12 is rejected for the same reasons as set forth previously in paragraph No. 5.

8. Claims 19 and 38-46 are allowed.

9. Regarding remarks filed 6-17-04, applicant states that improper motivation was used to reject the claims. However, the claimed "electromagnetic wave absorber" language is merely an obvious manner of intended use, and since Takaragi teaches the same structure in a wave absorber, one of ordinary skill in the art would have found it obvious to use the structure as an electromagnetic wave absorber, as a result of routine experimentation as to which wave absorbers were most effective for a particular type of wave.

On page 11 of the response applicant refers to use to encapsulate integrated circuits to prevent EMW leaking to environments external to the IC package, but no such language is presented in the claims, and thus, such argument is not persuasive.

Regarding remarks on page 12, since it is conventional in the art to use magnetic substances in wave absorbers, and Hakata teaches using fine metal powder as a wave absorber, choosing to use a magnetic powder as a wave absorber would have been obvious, merely as a matter of routine experimentation as to what type of metal worked best for a particular wave .

On page 13 applicant states that the wave absorber can be used in a high frequency region, and can use reduced steps of manufacturing, but such limitations are not in the claims and will not be further addressed.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A Swarthout whose telephone number is 571-272-2979. The examiner can normally be reached on M-F from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass, can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Brent Swarthout". The signature is written in a cursive, flowing style.

Brent A Swarthout
Examiner
Art Unit 2636

**BRENT A. SWARTHOUT
PRIMARY EXAMINER**